

REMARKS

This responds to the Office Action mailed on November 18, 2003.

Claims 10, 14, 20, 23, 33, 115 and 125 are amended, claims 13, 21, 26, 34, 110, 114, 116, 118, 122, 126 and 127 are canceled; as a result, claims 10-12, 14-20, 22, 109, 111-113, 115, 117, 119-121, 123-125, 128 and 129 are now pending in this application.

Allowable Subject Matter

Claim 129 was allowed. Applicant acknowledges allowance of claim 129.

Claims 13-14, 21, and 127 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Base claim 10 was rewritten to incorporate the features of claim 13, base claim 20 was rewritten to incorporate the features of claim 21, and base claim 125 was rewritten to incorporate the features of claim 127. Consequently, claims 13, 21 and 127 were canceled. Applicant respectfully requests reconsideration and allowance of claims 10, 20 and 125.

§112 Rejection of the Claims

1. Claims 109-124 were rejected under 35 U.S.C. § 112, first paragraph, because the specification, while being enabling for forming a dielectric cap on a top of the sidewalls of the conductive container structure such as in claim 10 with the fill layer formed inside the conductive container structure with a level below a top of the insulating layer formed outside of the conductive container structure, it does not reasonably provide enablement of the method as claimed in independent claims 109, 113, 115, 117, 121, and 123 and in the absence of a fill layer formed inside the conductive container structure with the insulating layer formed outside of the conductive container structure, which are necessarily critical or essential to the practice of the invention before forming a dielectric cap on a top of the sidewalls of the conductive container structure, but not included in the claim(s) is not enabled by the disclosure. Applicant respectfully traverses.

A claim which omits matter disclosed to be essential in the invention as described in the specification or in other statements of record may be subject to rejection as not enabling (*see*

M.P.E.P. § 2163(I)(B) citing *In re Mayhew*). Applicant is not aware of any such disclosure in the specification or statement of record that the matter stated above is necessary, critical, or essential to practice the invention. For example, while a fill layer may be an efficient way to facilitate the formation of the conductive container structure, other methods are possible - one could place, mask and etch the structure.

Further, Applicant respectfully submits adequate enablement for the elements of the contested claims is provided in the specification – especially in the drawings. E.g., for claim 9, Figures 1-8 show forming a conductive container structure having a closed bottom and sidewalls extending up from the closed bottom as recited in claim 109. Figures 7 and 8 show an embodiment of the step of forming a dielectric cap on a top of the sidewalls as recited in claim 109. Figures 10-12 show a further embodiment of the step of forming a dielectric cap on a top of the sidewalls as recited in claim 109. Applicant respectfully submits that the claims are enabled by the specification and requests withdrawal of the § 112 first paragraph rejection.

2. Claims 109-128 were rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claims 110, 114, 116, 118, 122, 124 and 126 are canceled. Claim 125 was rewritten to incorporate the features of claim 127. This rewriting has the added effect of curing the dependency problem of claim 128.

Applicant requests reconsideration and allowance of claims 109, 111-113, 115, 117, 119-121, 123, 125, and 128.

§102 Rejection of the Claims

Claims 109, 110, 113, 114, 117, 118, 121, and 122 were rejected under 35 USC § 102(b) as being anticipated by Dennison (U.S. 5,206,183).

Claims 110, 114, 118, 122 are canceled as discussed previously which renders the rejection moot as applied to these claims. Insofar as the rejection is applied to the remaining claims, Applicant respectfully traverses.

Concerning claims 109, 113:

Applicant is unable to find in the cited portions of Dennison, among other things, using the dielectric cap as part of the dielectric layer, as recited in the claims. Instead, Dennison apparently only refers to using an SiO₂ cap as an insulator. Also, Dennison refers to cap as an insulator formed from thermal oxidation of polysilicon. *See* Dennison, col. 7 lines 29-33. Thus, Dennison does not disclose using a dielectric cap as part of a dielectric layer that would be used, for example, to hold an electrostatic field. Therefore, Applicant respectfully requests reconsideration and allowance of claims 109 and 113.

Concerning claims 117 and 121:

Applicant is unable to find in the cited portions of Dennison, among other things, forming a dielectric cap on a top of the sidewalls, and forming a dielectric layer on the conductive container structure and including the dielectric cap, as recited in claims 117 and 121. Instead, as discussed previously, Dennison refers to a cap as an insulator. Therefore, Applicant respectfully requests reconsideration and allowance of claims 117 and 121.

§103 Rejection of the Claims

1. Claims 111-116, 119-120, and 123-124 were rejected under 35 USC § 103(a) as being unpatentable over Dennison (U.S. 5,206,183) as applied above, and further of Lur et al. (U.S. 5,364,817) and Abernathy et al. (U.S. 4,725,560). Applicant respectfully traverses.

Concerning claims 111-112, 119-120:

Claims 111 and 112 depend on base claim 109. Claims 119 and 120 depend on base claim 117. Applicant believes claims 111, 112, 119 and 120 are allowable at least for the reasons stated previously for the base claims, namely claims 109 and 117. Therefore, Applicant respectfully requests reconsideration and allowance of claims 111, 112, 119, and 120.

Concerning claim 113:

The mere fact that the prior art could be modified to provide the claimed invention is not sufficient to establish obviousness, there must be motivation (e.g., a teaching, suggestion, or incentive) in the prior art to make the modification to make the claimed invention. M.P.E.P. 2143.01. As stated previously, Dennison refers to a cap as an insulator formed from thermal oxidation of polysilicon. *See* Dennison, col. 7 lines 29-33. Lur refers to a dielectric used to

prevent an underlying insulating glue layer from being etched. *See* Lur, col. 3 lines 46-53. Thus, Dennison with Lur and Abernathy does not contain a motivation to use a dielectric cap as part of a dielectric layer that would be used, for example, to hold an electrostatic field. Instead, it appears the motivation comes from the Applicant's application and apparently is an inappropriate use of hindsight analysis.

The proposed modification of the prior art cannot change the principle of operation of a reference. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. M.P.E.P. 2143.01. Applicant believes that using a dielectric as a dielectric layer would change the principle of operation of using a dielectric layer as an insulator in Dennison and as a protection from etching of an insulator in Lur.

Therefore, Applicant respectfully requests reconsideration and allowance of claim 113.

Concerning claim 115:

Applicant is unable to find in the proposed combination of references, among other things,

forming a dielectric cap on a top of the sidewalls, wherein the dielectric cap comprises at least one dielectric material selected from the group consisting of oxides, nitrides and silicon oxynitrides, wherein forming a dielectric cap includes forming a dielectric layer on the insulating layer, the conductive layer and the fill layer, and removing the dielectric layer from the insulating layer and the fill layer,

as presently recited in claim 115. Therefore, Applicant respectfully requests reconsideration and allowance of claim 115.

Concerning claim 123:

To establish *prima facie* obviousness under 35 U.S.C. § 103 all claim limitations must be taught or suggested in the cited prior art. Applicant is unable to find in the proposed combination of references, among other things, forming a dielectric layer on the conductive container structure and the dielectric cap; and forming a cell plate on the dielectric layer, wherein the dielectric layer is interposed between the cell plate and the conductive container structure, as recited in claim 123. Applicant is unable to find a teaching or suggestion of such a structure in

the cited portions of the proposed combination of references. Therefore, Applicant respectfully requests reconsideration and allowance of claim 123.

Concerning claims 114, 124:

Claims 114 and 124 were canceled as discussed above rendering the rejection moot as applied to these claims.

2. Claims 10-12 were rejected under 35 USC § 103(a) as being unpatentable over Dennison (U.S. 5,206,183) taken with Dennison (U.S. 5,888,877) or Ahn (U.S. 5,284,787). Applicant respectfully traverses.

Base claim 10 was rewritten in a form indicated in the Office Action to be allowable. Therefore, Applicant respectfully requests reconsideration and allowance of claims 10-12.

3. Claims 15-20, 22, 125, and 126 were rejected under 35 USC § 103(a) as being unpatentable over Dennison (U.S. 5,206,183) taken with Dennison (U.S. 5,888,877) or Ahn (U.S. 5,284,787), as applied above to claims 10-12, and further of Lur et al. (U.S. 5,364,817) and Abernathey et al. (U.S. 4,725,560). Applicant respectfully traverses.

Concerning claims 15-19:

Claims 15-19 depend on base claim 10 and are believed to be allowable at least for the reasons stated above for claim 10. Therefore, Applicant respectfully requests reconsideration and allowance of claims 15-19.

Concerning claims 20 and 22:

Base claim 20 was rewritten in a form indicated in the Office Action to be allowable. Therefore, Applicant respectfully requests reconsideration and allowance of claims 20 and 22.

Concerning claim 125:

Claim 125 was rewritten in a form indicated in the Office Action to be allowable. Therefore, Applicant respectfully requests reconsideration and allowance of claim 125.

Withdrawn Claims

Applicant herein amends claims 23 and 33. Applicant submits that these claims now generic or at least linking claims. Consideration and allowance of claims 23-25, 27-33 and 35 are requested.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 349-9587 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

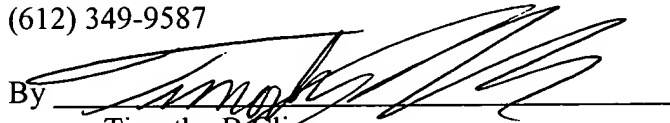
Respectfully submitted,

GURTEJ S. SANDHU ET AL.

By their Representatives,

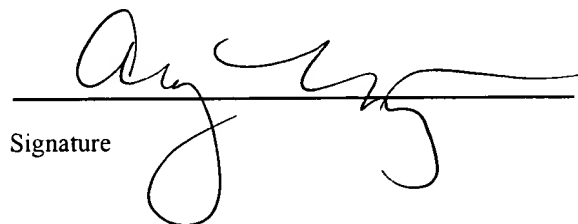
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Date 19 Jan '04
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 19th day of January, 2004.

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